**MONTANA STATE HOSPITAL**
**POLICY AND PROCEDURE**

# EMPLOYEE HEALTH RECORD & IMMUNIZATION/TESTING REQUIREMENTS

**Effective Date:** February 3, 2011 **Policy #:** IC-02



**I. PURPOSE:** To provide current record of all employees' immunization and tuberculosis screening status and explain immunization and testing requirements for employees.

**II. POLICY:** Montana State Hospital is responsible for maintenance of employee records regarding tuberculosis screening, Hepatitis B immunizations, and other immunizations recommended by the Department of Public Health and Human Services.

**III. DEFINITIONS:**

A. MMR - Measles, Mumps, Rubella Vaccination

B. PPD – Purified Protein Derivative used for the Mantoux Tuberculin Skin Test

C. TST - Tuberculin Skin Test

**IV. RESPONSIBILITIES:**

A. The Human Resources Department is responsible for ensuring that prior to patient contact, all new employees provide documentation of current Tuberculosis status, and documentation of MMR immunity by laboratory confirmation or vaccination.

B. The Medical Clinic Staff are responsible for maintenance of Employee Health Record files, including current TB status and Hepatitis B consent/waiver, MMR information and other testing or immunizations.

The Medical Clinic Staff will maintain a file folder containing all previously mentioned records and changes as they occur. Changes may include annual TB screening results and dates, flu shots, etc.

Medical Clinic Staff will also administer injections and schedule x-rays as ordered by physician.

C. Department Directors will obtain documentation to show that volunteers, contractors, interns, or students having regular contact with hospital patients are free of communicable tuberculosis.

## V. PROCEDURE:

A. Human Resources (H.R.):

1. Documentation of current Tuberculosis status is to be provided to MSH prior to patient contact. MMRs and titers are not provided for employees.

2. Human Resources will prepare a file folder with employee's name, date of birth, social security number, date of employment and hospital department.

3. New employee shall sign consent/waiver form for Hepatitis B immunization.

4. Human Resources will send completed file folder containing the TB, MMR documentation and the signed Hepatitis B vaccination consent/waiver form to the Medical Clinic **prior to patient contact**.

5. Upon termination of employee, Human Resources will notify Medical Clinic. Notification of all employee terminations will be done on a monthly basis.

B. Tuberculin Skin Testing

1. New Employees

a. New employees who have been made a conditional offer of employment shall be screened for presence of infection with *M. tuberculosis* using the Mantoux TST skin test. Skin testing will employ the two-step procedure. (If the reaction to the first test is less than 10 mm induration, a second test will be given 1-3 weeks later). A positive second test is indicative of a boosted reaction and NOT a new infection. If the second test remains negative, the person is classified as uninfected.

b. Individuals with a documented history of a positive TST will not undergo skin testing. They will, however, be asked to bring documentation from their private physician or the local health department of their work-up following conversion. In addition, an assessment for signs and symptoms of TB will be completed by MSH Medical Clinic staff.

c. Individuals who are found to be TST positive upon initial screening will be referred MSH Medical Clinic Physician and will need a TB symptom screening and a baseline chest x-ray. MSH will not provide treatment for positive reactors and will refer them to their private physician.

d. Individuals with documented history of a negative TST performed within the last 12 months need to receive only one (1) intradermal injection of TST tuberculin. (Note: In this instance, the prior skin test serves as the 1st step of a

two-step procedure). If the 2nd test remains negative, the person is classified as uninfected and no further action is necessary. If the second test is positive, the individual will be referred as in "3" above.

e. Individuals with no documented history of a TST skin test within the last 12 months will undergo the two-step procedure. If the 2nd test remains negative, no further action is necessary.

C. Annual Employee Screening

1. Employees with a negative skin test history will have, at a minimum, an annual TST skin test and, depending on the test results, will be followed as above. The two-step procedure need not be used.

2. Skin test converters will be sent to the Medical Clinic Physician for follow-up. If the employee is symptomatic, they will be referred to their private physician and return to work will be contingent upon the receipt of documentation attesting to lack of infectivity.

3. Positive reactors who are unable or unwilling to take preventive treatment do not require periodic chest x-rays. Such individuals shall complete an annual TB symptom screening

D. Exposure Incidents

1. Exposure may result from contact with a patient, caregiver, family member or co-workers. In the event of documented occupational exposure to a diagnosed case of infectious pulmonary tuberculosis, all employees having occupational exposure will undergo the following:

   a. TST skin test, if previously TST negative.

   b. Follow-up TST skin test in 10-12 weeks. If employee develops a positive skin test, a chest x-ray will be obtained.

   c. All TST converters, regardless of chest x-ray results, will be referred to a physician or the local health department for follow-up.

   d. If symptomatic, employment may be resumed contingent upon the receipt of documentation attesting to the lack of infectivity.

E. Administration of the Tuberculin Test

1. Tuberculin skin testing is the standard method of identifying persons infected with M. tuberculosis. The intradermal Mantoux test, not a multiple puncture test, should be used to determine if tuberculous infection has occurred. As an alternative a blood assay for M. tuberculosis (BAMT) may be used.

2. The Mantoux test is performed by the intradermal injection of 0.1 ml of TST tuberculin containing 5 TU (tuberculin units) into either the volar or dorsal

surface of the forearm. The injection should be made with a disposable tuberculin syringe. The injection should be made just beneath the surface of the skin, with the needle bevel facing upward to produce a discrete, pale elevation of the skin (a wheal) 6mm to 10mm in diameter.

3. To prevent needle stick injuries, safety engineered sharps should be used and needles should not be recapped, purposely bent or broken by hand, removed from disposable syringes, or otherwise manipulated by hand. After they are used, disposable needles and syringes should be placed in puncture-resistant containers for disposal.

4. The Mantoux test should be read 48 to 72 hours after the injection. If the employee fails to show up for the scheduled reading, a positive reaction may still be measurable up to one week after testing. However, if an employee who fails to return after 72 hours has a negative test, skin testing should be repeated**.** The reading should be based on measurement of induration, not erythema. The diameter of induration should be measured transversely to the long axis of the forearm and recorded in millimeters.

F. Classification of the Tuberculin Reaction

1. An **induration of 5 or more millimeters** is considered positive in;

   a. HIV – infected persons.
   b. A recent contact of a person with TB disease.
   c. Persons with fibrotic changes on chest radiograph consistent with prior TB.
   d. Patients with organ transplants.
   e. Persons who are immunosuppressed for other reasons (e.g., taking the equivalent of >15 mg/day of prednisone for 1 month or longer, taking TNF-α antagonists).

2. An **induration of 10 or more millimeters** is considered positive in;

   a. Recent immigrants (< 5 years) from high-prevalence countries.
   b. Injection drug users.
   c. Residents and employees of high-risk congregate settings.
   d. Mycobacteriology laboratory personnel.
   e. Persons with clinical conditions that place them at high risk.
   f. Children < 4 years of age.

4. An **induration of 15 or more millimeters** is considered positive in;

a. Any person, including persons with no known risk factors for TB. However, targeted skin testing programs should only be conducted among high-risk groups.

5. Most persons can receive a TST. TST is contraindicated only for persons who have had a severe reaction (e.g., necrosis, blistering, anaphylactic shock, or ulcerations) to a previous TST. It is not contraindicated for any other persons, including infants, children, pregnant women, persons who are HIV-infected, or persons who have been vaccinated with BCG.

6. In general, there is no risk associated with repeated tuberculin skin test placements. If a person does not return within 48-72 hours for a tuberculin skin test reading, a second test can be placed as soon as possible. There is no contraindication to repeating the TST, unless a previous TST was associated with a severe reaction.

7. In some persons who are infected with M. tuberculosis, the ability to react to tuberculin may wane over time. When given TST years after infection, these persons may have a false-negative reaction. However, the TST may stimulate the immune system, causing a positive or boosted reaction to subsequent tests. Giving a second TST after an initial negative TST reaction is called two-step testing.

8. Two-step testing is useful for the initial skin testing of adults who are going to be retested periodically, such as health care workers or nursing home residents. This two-step approach can reduce the likelihood that a boosted reaction to a subsequent TST will be misinterpreted as a recent infection.

9. Vaccination with live viruses may interfere with TST reactions. For persons scheduled to receive a TST, testing should be done as follows:

   a. Either on the same day as vaccination with live-virus vaccine or 4-6 weeks after the administration of the live-virus vaccine at least one month after smallpox vaccination.

10. Most persons can receive a TST. TST is contraindicated only for persons who have had a severe reaction (e.g., necrosis, blistering, anaphylactic shock, or ulcerations) to a previous TST. It is not contraindicated for any other persons, including infants, children, pregnant women, persons who are HIV-infected or persons who have been vaccinated with BCG.

G. Testing for TB in BCG-Vaccinated Persons

1. BCG, or bacillie Calmette-Guérin, is a vaccine for TB disease. Many persons born outside of the United States have been BCG-vaccinated. BCG vaccination may cause a positive reaction to the TB skin test, which may complicate decisions about prescribing treatment. Despite this potential for BCG to interfere with test results, the TB skin test is not contraindicated for persons who have been vaccinated with BCG. The presence or size of a TB

skin test reaction in these persons does not predict whether BCG will provide any protection against TB disease. Furthermore, the size of a TB skin test reaction in a BCG-vaccinated person is not a factor in determining whether the reaction is caused by latent TB infection (LTBI) or the prior BCG vaccination.

2. TB blood tests tests (interferon-gamma release assays or IGRAs), unlike the TB skin tests, are not affected by prior BCG vaccination and are not expected to give a false-positive result in persons who have received prior BCG vaccination.

**VI. REFERENCES:** Guidelines for Infection Control in Hospital Personnel, CDC, DPHHS TB program 3/2008 and Infection Prevention Manual for Behavioral Health 2009.

**VII. COLLABORATED WITH:** Human Resources, Medical Clinic, Director of Nursing Services, Hospital Administrator.

**VIII. RESCISSIONS:** #IC-02, *Employee Health Record and Immunization / Testing Requirements* dated September 14, 2009; #IC-02, *Employee Health Record and Immunization / Testing Requirements* dated April 24, 2007; #IC-02, *Employee Health Record and Immunization / Testing Requirements* dated August 1, 2003; #IC-02, *Employee Health Record and Immunization / Testing Requirements* dated December 18, 2002; #IC-08, *Infection Control of Employees* dated September 1, 2002; #IC-02, *Employee Health Record* dated February 14, 2000; HOPP #IC-14-01, *Employee Health Record*, dated March 17, 1996.

**IX. DISTRIBUTION:** All hospital policy manuals

**X. ANNUAL REVIEW AND AUTHORIZATION:** This policy is subject to annual review and authorization for use by either the Administrator or the Medical Director with written documentation of the review (Attachment B) per M.C.A. § 307-106-330.

**XI. FOLLOW-UP RESPONSIBILITY:** Infection Preventionist

**XII. ATTACHMENTS:** None

| | |
|---|---|
| _____/___/__ | _____/___/__ |
| John W. Glueckert Date | Thomas Gray, MD Date |
| Hospital Administrator | Medical Director |